IN THE CLAIMS:

1   1-2.   (Cancelled)

1   3.   (Previously Presented) A method of providing conferencing resources in an ex-
2   pandable telecommunications system having a plurality of nodes, and a host coupled to at
3   least one node for controlling the system in which conferencing resources are utilized by
4   one or more nodes participating in a conference, the method including the steps of:
5   (A)   providing the plurality of nodes with means for connecting and discon-
6   necting communications paths between a plurality of ports having digital network/line
7   interfaces that couple the node with the PSTN and private networks, said nodes including
8   switching nodes that can switch communications to any port connected to the system, and
9   at least two of said switching nodes being conferencing nodes, said conferencing nodes
10 including individual digital signal processing (DSP) circuits programmed to perform a
11 conference between three or more participants who are callers connected at any port in
12 the system, and said switching nodes having switching buses on which that node is as-
13 signed time slots for transmitting and receiving data and control information and said
14 switching nodes being connected in communicating relationship by an inter-nodal net-
15 work;
16   (B)   defining a requested conference as being of one of a dynamic conference
17 type, a critical conference type and a static conference type, including determining con-
18 ference type by employing statistical analysis and/or historical data about past system
19 conference behavior in said statistical analysis to predict conference type;
20   (C)   identifying the DSP circuit within a conferencing node that has available
21 resources for performing a conferencing function for a conference of that type as re-
22 quested in the system; and
23   (D)   after said DSP circuit has been identified, determining whether the node in
24 which said identified DSP circuit is located has sufficient available time slots on its

25 switching bus to manage the data to and from all of the participants in the requested con-

26 ference.

1 4.   (Cancelled)

1 5.   (Currently Amended) The method of providing conferencing resources as defined

2 in ~~claim 2~~ claim 3, including the further step of employing user-defined parameters to

3 determine conference type.

1 6.   (Previously Presented) The method of providing conferencing resources as de-

2 fined in claim 3, including the further step of using historical information about an aver-

3 age conference generally handled by a particular system and handled at a particular port

4 to predict conference type.

1 7.   (Currently Amended) The method of providing conferencing services as defined

2 in ~~claim 2~~ claim 3, including the further step of defining as said dynamic conference a

3 conference that is likely to change in size based upon predetermined criteria.

1 8.   (Previously Presented) The method of providing conferencing services as defined

2 in claim 7, including the further step of assigning the DSP circuit card having the maxi-

3 mum available capacity to a conference which has been identified as a dynamic confer-

4 ence.

1 9.   (Previously Presented) The method of providing conferencing services as defined

2 in claim 8, including the further step of selecting for a dynamic conference the DSP cir-

3 cuit in the system having as many channels as possible such that a conference can grow

4 as large as possible and that channels remain available for participants who join the con-

5 ference while in progress.

1 10. (Currently Amended) The method of providing conferencing services as defined

2 in ~~claim 2~~ claim 3 including the further step of defining as said critical conference a con-

3 ference that requires the maximum opportunity for growth in the system.

1 11. (Previously Presented) The method of providing conferencing services as defined

2 in claim 10 including the further step of selecting, for a critical conference, the DSP cir-

3 cuit with the maximum available capacity and instructing the DSP circuit with said

4 maximum available capacity to reserve these conference resources and to establish the

5 conference, and further instructing the DSP circuit to block other conferences from being

6 assigned to that DSP circuit such that capacity remains available for that critical confer-

7 ence, for the life of that critical conference.

1 12. (Previously Presented) The method of providing conferencing services as defined

2 in claim 11 including the further step of revealing blocked channels for use by the DSP

3 circuit, after the critical conference is finished.

1 13. (Currently Amended) The method of providing conferencing services as defined

2 in ~~claim 2~~ claim 3, including the further step of defining as said static conference a con-

3 ference in which the number of participants will remain substantially constant.

1 14. (Previously Presented) The method of providing conferencing services as defined

2 in claim 13, including the further step of assigning a static conference to a DSP circuit on

3 a "best fit" basis.

1 15. (Previously Presented) A method of providing conferencing resources in an ex-

2 pandable telecommunications system having a plurality of nodes, and a host coupled to at

3 least one node for controlling the system in which conferencing resources are utilized by

4 one or more nodes participating in a conference, the method including the steps of:

5   (A) providing said telecommunications system with a line-to-switch

6   (LSD) data bus comprised of multiple individual bus conductors, each bus con-

4

7   ductor carrying time slots coming into the node from line cards, including T1 line

8   cards, and said system further including a switch-to-line (SLD) data bus com-

9   prised of multiple individual bus conductors that carry time slots of PCM-encoded

10   data from a nodal switch in the node back out to a destination line card;

11   (B)   defining a requested conference as being of one of a dynamic con-

12   ference type, a critical conference type and a static conference type;

13   (C)   identifying the DSP circuit within a conferencing node that has

14   available resources for performing a conferencing function for a conference of the

15   type requested; and

16   (D)   identifying a zone of time slots having the lowest order of alloca-

17   tion such that it is least likely to be taken when a new T1 card is inserted into the

18   system during operation, and assigning a conferencing node to use these lowest

19   orders of allocation time slots for a requested conference.

1   16.   (Previously Presented) The method of providing conferencing resources as de-

2   fined in claim 15, including the step of:

3   (a)   allocating zones of time slots in such a manner that 192 time slots of a T1

4   span are divided into the following segments:

5   time slots 0-191 are in the regular T1 channel;

6   time slots 192-215 are the lower dead zone;

7   time slots 216-223 are in the lower small dead zone;

8   time slots 224-247 are in the upper large dead zone; and

9   time slots 248-255 are in the upper small dead zone; and

10   (b)   assigning time slots in the lower and upper small dead zones of the indi-

11   vidual bus conductors to conferences.

1   17.   (Cancelled)

1   18.   (Previously Presented) An expandable telecommunications system having means

2   for conferencing three or more participants interfaced with the system, the system com-

3   prising:

4   (A)   a plurality of nodes for performing telecommunications switching, each of

5   said switching nodes including means for dynamically connecting or disconnecting

6   communication paths with respect to various ones of a plurality of ports, means for time

7   switching information to or from said ports, means for coupling the node with the PSTN

8   and private networks via digital network/line interfaces, said nodes including switching

9   nodes that can switch communications to any port connected to the system via the PSTN

10   and private networks, and means for transmitting and receiving information in packetized

11   form, and means connected in communicating relationships including a bus for carrying

12   data to and from said ports;

13   (B)   a host connected in communicating relationship with at least one of said

14   switching nodes, said host controlling predetermined operations of the system;

15   (C)   means in said switching nodes for generating and sending a message re-

16   questing establishment of a conference call for at least three conferees connected to one

17   or more of said nodes;

18   (D)   means for interconnecting said switching nodes in communicating rela-

19   tionships and operable in conjunction with said transmitting and receiving means to trans-

20   fer said packetized information such that information which originates from any port in

21   the switching nodes is substantially continuously communicable to any node interfaced

22   with said interconnecting means;

23   (E)   at least one conferencing node for providing conferencing services, said at

24   least one conferencing node interfaced with said interconnecting means and including

25   individual DSP circuits, said conferencing node also having means for switching com-

26   munications, including conferenced output to any other port interfaced with the system

27   from the PSTN and private networks; and

28   (F)   means for allocating conferencing resources including:

29   1.   means for determining whether a DSP circuit in a conferencing

30   node has available conferencing resources to perform a requested conference; and

6

31   2.   means for determining whether the conferencing node has suffi-

32 cient available time slots on its switching buses to manage the data to and from the con-

33 ferences or a particular requested conference

34   (G)   a DSP card in said conferencing node, including:

35   1.   a DSP module which contains a plurality of DSP circuits; and

36   2.   a CPU including means for receiving messages about conferences

37 to be established, and means for routing voice information to a DSP chip identified for a

38 particular conference; and

39   (H)   line-to-switch (LSD) data bus interfaced with line cards which connect

40 ports in the system, and which carries a PCM-encoded voice information from the line

41 cards to said DSP cards.

1   19.   (Previously Presented) The expandable telecommunications system as defined in

2 claim 18 wherein said voice information for paid conference arrives at a port coupled

3 with one or more of the following:

4   a.   a landline telephone;

5   b.   the PSTN;

6   c.   a private network;

7   d.   a wireless network; and

8   e.   the Internet.

1   20-21   (Cancelled)